

Nemaha County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/28/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 21 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Nemaha County economy.¹

These 21 sectors have a total direct output of approximately **\$953.4 million** and support **1,791.1 jobs** in Nemaha County. Running the model for all 21 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Nemaha County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	1,791.1	21.57%	\$193,400,883	32.89%	\$953,363,851	162.12%
Indirect Effect	650.8	7.84%	\$53,415,565	9.08%	\$105,092,168	17.87%
Induced Effect	471.0	5.67%	\$29,398,289	5.00%	\$55,820,364	9.49%
Total Effect	2,912.9	35.08%	\$276,214,737	46.97%	\$1,114,276,382	189.49%

As shown in the above table, agriculture, food, and food processing sectors support **2,912.9 jobs**, or **35.08%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$1.11 billion**, roughly **189.49% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 21 agriculture, food, and food processing sectors is approximately **\$276.2 million**, or **46.97% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **46.97% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **388.9 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Nemaha County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	388.9	\$63,852,164
Animal production, except cattle and poultry and eggs	289.9	\$50,029,627
Dog and cat food manufacturing	268.2	\$369,146,764
Food product machinery manufacturing	239.3	\$75,706,627
Wholesale trade	197.3	\$42,354,616
Farm machinery and equipment manufacturing	153.8	\$88,914,412
Other animal food manufacturing	121.1	\$170,234,759
Truck transportation	102.4	\$18,734,402
Grain farming	78.3	\$38,921,731
All other crop farming	75.9	\$7,782,524

The dog and cat food manufacturing sector directly contributes approximately **\$369.1 million** to the Nemaha County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Dog and cat food manufacturing	268.2	\$369,146,764
Other animal food manufacturing	121.1	\$170,234,759
Farm machinery and equipment manufacturing	153.8	\$88,914,412
Food product machinery manufacturing	239.3	\$75,706,627
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	388.9	\$63,852,164
Animal production, except cattle and poultry and eggs	289.9	\$50,029,627
Wholesale trade	197.3	\$42,354,616
Grain farming	78.3	\$38,921,731
Oilseed farming	24.5	\$37,327,702
Dairy cattle and milk production	65.1	\$29,360,147

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Nemaha County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	24.5	\$37,327,701.57
Grain farming	78.3	\$38,921,730.04
Vegetable and melon farming	0.02	\$4,721.57
Fruit farming	1.3	\$137,609.47
Tree nut farming	0.1	\$26,844.36
Greenhouse, nursery, and floriculture production	1.4	\$233,023.52
All other crop farming	75.9	\$7,782,524.11
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	388.9	\$63,852,161.41
Dairy cattle and milk production	65.1	\$29,360,145.57
Poultry and egg production	0.8	\$751,647.17
Animal production, except cattle and poultry and eggs	289.9	\$50,029,624.94
Dog and cat food manufacturing	268.2	\$369,146,759.03
Other animal food manufacturing	121.1	\$170,234,756.47
Dry, condensed, and evaporated dairy product manufacturing	7.9	\$13,739,874.84
Meat processed from carcasses	2.7	\$2,562,040.33
Bread and bakery product, except frozen, manufacturing	10.6	\$1,110,839.61
Frozen cakes and other pastries manufacturing	0.7	\$94,101.03
Farm machinery and equipment manufacturing	153.8	\$88,914,413.45
Food product machinery manufacturing	239.3	\$75,706,626.89
Veterinary services	24.5	\$2,232,756.14
Landscape and horticultural services	36.2	\$1,193,934.56

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Nemaha County, the retail sector was omitted.